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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,657	02/28/2002	John A. Scott	112056-0035	2276

24267 7590 02/09/2005

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EXAMINER	
CONTINO, PAUL F	

ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,657	SCOTT, JOHN A.	
	Examiner	Art Unit	
	Paul Contino	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *6* is/are allowed.

6)☐ Claim(s) *1-5,7-15,17-23,25-31 and 33-39* is/are rejected.

7)☒ Claim(s) *16,24 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ ~~Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)~~ Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Claim 6 is allowed.

The following is an examiner's statement of reasons for allowance:

A method for a client to continue to access file service operations after a first file server has suffered an error condition, the method comprising:

computing a failover name by **appending a set text string to a name of the first file server**;

resolving the failover name to a network address;

connecting to a failover file server using the network address and a predetermined alternate data access port.

2. Claims 16, 24, and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The appending of the text "backup" to a file server name renders the stated claims allowable.

Response to Arguments

3. Applicant's arguments, see page 24 lines 8-14, filed December 20, 2004, with respect to the Drawings have been fully considered and are persuasive. The objections pertaining to the Drawings of February 28, 2002 have been withdrawn.

4. Applicant's arguments, see page 24 lines 16-19, filed December 20, 2004, with respect to a Brief Description of Fig. 7 have been fully considered and are persuasive. The objection pertaining to the Brief Description of February 28, 2002 has been withdrawn.

5. Applicant's arguments, see page 25 lines 5-10, filed December 20, 2004, with respect to objection of the Specification have been fully considered and are persuasive. The objections pertaining to the Specification of February 28, 2002 have been withdrawn.

6. Applicant's arguments, see page 25 lines 15-16, filed December 20, 2004, with respect to rejection of Claim 1 have been fully considered and are persuasive. The rejection under 35 U.S.C. 112 pertaining to the Claim 1 of February 28, 2002 has been withdrawn.

7. Applicant's arguments filed December 20, 2004, on page 25 lines 1-3 regarding the objection to DNS 132 reference in the Specification have been fully considered but they are not persuasive. Reference to "DNS Server" **132** is still present.

8. Applicant's arguments filed December 20, 2004, regarding the 35 U.S.C. 102(b) rejections on page 25 line 18 through page 27 line 13 pertaining to Claims 8 and 12 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with Applicant's arguments that the prior art reference Bhanot et al. does not disclose a **secondary data access port**. Examiner interprets the disclosure of the establishment of a separate secondary connection by Bhanot et al. upon failure as implying use of a secondary port (Fig. 3; column 5 lines 14-16 and 44-46; column 5 line 66 through column 6 line 2).

9. Applicant's arguments file December 20, 2004, regarding the 35 U.S.C. 102(e) rejections on page 27 line 15 through page 29 line 16 pertaining to Claims 1-4 and 11 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with Applicant's arguments that the prior art reference Sundaresan et al. does not disclose a **symbolic name generated from the second file server**. Examiner interprets the name of the instance of a server used for connection between client and server as being generated from the server (paragraph [0026] lines 5-6, 8-15; paragraph [0034] lines 1-5).

10. Applicant's arguments file December 20, 2004, regarding the 35 U.S.C. 103(a) rejections on page 29 line 18 through page 32 line 6 pertaining to Claims 5, 7, and 13 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with Applicant's arguments that the combined prior art reference of Sundaresan et al. in view of Gronke et al. does not disclose **computing a failover name; resolving the failover name to a network address;** and **connecting to a failover file server using the network address and a predetermined data access port**. Examiner interprets port map of Fig. 7 as disclosed by Gronke et al. as including a predetermined (computed) name used during failover (paragraph [0044] lines 2-8). Examiner interprets resolution of a failover name to a network address as that disclosed by Sundaresan et al. in paragraph [0036] lines 3-4, where determining connection information for "server" at the second server resolves the "failover name to a network address" (further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15). Examiner interprets connecting to a server during failover using the network address and predetermined access port as that disclosed by Sundaresan et al. in paragraph [0036] lines 9-11.

Specification

11. The specification is objected to as failing to comply with 37 CFR 1.74 (see MPEP 608.01(f)) which states:

> When there are drawings, there shall be a brief description of the several views of the drawings and the detailed description of the invention shall refer to the different views by specifying the numbers of the figures and to the different parts by use of reference letters or numerals (preferably the latter)

The Brief Description of Drawings section of applicant's specification fails to include reference to Figure 7 of drawings. Appropriate correction is required.

The specification on page 7 line 27 references "DNS" to item 132 which is labeled as 130 in Figure 1. Examiner treats reference to DNS item 132 as DNS item 130. Appropriate correction is required.

Claim Objections

12. Claims 14, 22, 30, 38, and 39 are objected to because of the following informalities: As in claim 14, line 4 states "by a fie system" where "fie" is interpreted by Examiner as "file". Claims 22, 30, 28, and 39 exhibit similar informalities. Appropriate correction is required.

Double Patenting

13. Claim 21 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 18. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claim 19-20, 27-28, and 35-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 19, 27, and 35 recite the limitation "the failed file server". There is insufficient antecedent basis for this limitation in the claim.

Claims 20, 28, and 36 recite the limitation "the failing file server". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

15. Claim 39 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Electromagnetic signals may not be patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 8 and 12 rejected under 35 U.S.C. 102(b) as being anticipated by Bhanot et al. (U.S. Patent 5,796,934).

As in claim 8, Bhanot et al. disclose a cluster interconnect, the cluster interconnect providing a communications link to a partner file server in the file server cluster (column 5 lines 29-31);

a primary data access port for receiving file service operations from file server clients (column 5 line 66 through column 6 line 1);

a secondary data access port, the secondary data access port only being active when the file server detects that the partner file server has suffered an error condition, wherein the file server processes file service operations received via the secondary data access port to provide file service operations to clients of the partner file server (column 5 lines 14-16, 44-46, 66 through column 6 line 2).

As in claim 12, Bhanot et al. disclose a computer-readable medium, including program instructions (column 6 lines 6-37, 60 through column 7 line 8, where exemplary computer system is interpreted to include server as well as client), for:

detecting that a failed server has suffered an error indication (Fig. 4 #402; column 5 lines 29-31 and lines 35-36);

asserting ownership of a set of storage devices normally owned by the failed file server (Fig. 3; column 6 lines 35-37 where the database sessions refer to communicating with a storage device and 48-52 where it is inherent that the recovery server process the failed primary server's intended instructions on the failed primary server's storage device);

activating a secondary data access port for receiving connections over a network (column 5 lines 7-8 and line 66 through column 6 line 2);

processing file service operations received by one or more clients over the data access port (column 6 lines 48-52).

* * *

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

17. Claims 1-4, and 11 rejected under 35 U.S.C. 102(e) as being anticipated by Sundaresan et al. (U.S. PGPub 2003/0033412 A1).

As in claim 1, Sundaresan et al. disclose detecting, by the first file server, that the second file server has suffered an error condition (paragraph [0039] lines 3-7 and paragraph [0040] lines 6-10);

asserting ownership, by the first file server, of a set of storage devices normally owned by the second file server (paragraph [0034] lines 1-5 and paragraph [0040] lines 9-10);

activating, on the first file server, a secondary data access port for receiving connections over a network (paragraph [0023] lines 17-21 where "secondary data access port for receiving connections over a network" is interpreted as the connection between a server 210 and a client 220 and is "activated" by connection through the client as disclosed in paragraph [0036] lines 9-10);

processing, by the first file server, file service operations directed to the secondary data access port from a set of failover clients, the failover clients accessing the first file server by computing a network address associated with the first file server from a symbolic name generated from the second file server, whereby failover operation is achieved by the client (paragraph [0036]; "computing a network address" is taught as determining connection information by client in lines 3-8 and further described in paragraph [0026] lines 1-11).

As in claim 2, Sundaresan et al. disclose sending, by the second file server, an error message to the first file server (paragraph [0039] lines 3-7 where "error message" is interpreted

as any message from failing server to recovery server of failing server's inability to properly continue operation).

As in claim 3, Sundaresan et al. disclose detecting, by the first file server, a lack of a status signal generated by the second file server (paragraph [0040] lines 4-10 where "status signal" is interpreted as disclosed message sent periodically between servers).

As in claim 4, Sundaresan et al. disclose secondary data access port is a virtual interface discriminator (paragraph [0036] lines 3-4 and 8-11; background in paragraphs [0025] and [0027]).

As in claim 11, Sundaresan et al. disclose means for communicating with a partner file server in the file server cluster (Fig. 4 and paragraph [0023], implied in paragraph [0040] lines 4-6 in the periodic messaging between servers);

means for identifying that the partner file server has suffered an error condition (paragraph [0039] lines 3-7 where "error message" is interpreted as any message from failing server to recovery server of failing server's inability to properly continue operation);

means asserting ownership of disks normally owned by the partner file server (paragraph [0034] lines 1-5 and paragraph [0040] lines 9-10 where it is inherent there be a means of accessing the failed server's disks upon failover);

means for processing file service operations from clients of the partner file server (paragraph [0034] lines 1-5 and paragraph [0036] lines 9-11, where it is inherent there be a

similar means for the recovery server to continue the functionality of the first server and its "processing" of "file service operations.").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. Claims 5, 7, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Sundaresan et al. in view of Gronke (U.S. PGPub 2002/0071386). Sundaresan et al. disclose resolving the failover name to a network address (paragraph [0036] lines 3-4 where determining connection information for "server" at the second server resolves the "failover name to a network address"; further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15). In addition, Sundaresan et al. disclose connecting to a failover file server using the network address and predetermined alternate data access port (paragraph [0036] lines 9-11).

However, Sundaresan et al. do not specifically disclose computing a failover name. Gronke discloses computing a failover name in a virtual interface (Fig. 7; paragraph [0045] where "computing a failover name" is interpreted as the identifying of an alternate fabric by a port mapper in the event of a failure and assignment of a virtual port number by the connection management subsystem).

It would have been obvious to a person skilled in the art at the time the invention was made to include the "computing of a failover name" as disclosed by Gronke in the filer failover environment of Sundaresan et al. This would have been obvious because Gronke disclose determining a failover name (paragraph [0045] lines 13-14), resolving a failover address (paragraph [0045] lines 14-15), and connect to the new port (paragraph [0045] lines 15-16), which parallels the same process described in Sundaresan et al. (paragraph [0036]). Gronke also provides a "virtual interface" environment (paragraph [0016] and [0018]) as does Sundaresan et al. in which failover (paragraph [0044] lines 2-8) occurs in a network (paragraph [0026] lines 10-11) consisting of "clients" and "servers" (paragraph [0028] lines 4-5), which a person skilled in the art would recognize as allowing for faster and simpler failover.

* * *

19. Claims 9 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Bhanot et al. as applied to claim 8, in view of Sundaresan et al.

Bhanot et al. do not specifically disclose use of failover in a "virtual interface" environment of claims 9 and 10 (paragraph [0036] lines 3-4 and 9-11; background in paragraphs [0025] and [0027]) with a "network protocol being free of support for moving a transport address" of claim 8. Sundaresan et al. disclose use of failover in a "virtual interface" client and server environment.

It would have been obvious to a person skilled in the art at the time the invention was made to include a "virtual interface" as disclosed by Sundaresan et al. in the client/server

environment of Bhanot et al. This would have been obvious because Bhanot et al. disclose a similar invention to Sundaresan et al. and never limit the scope of the network protocol to a "non-virtual" interface. Further, Bhanot et al. disclose the client automatically establishing a connection to a designated secondary server (column 5 lines 44-46), alluding to the "virtual interface" addressing and connecting of servers in a similar fashion as disclosed by Sundaresan et al.

* * *

20. Claims 14-15, 17-23, 25-31, and 33-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over French et al. (U.S. Patent No. 6,745,241 B1) in view of Sundaresan et al, further in view of Gronke.

As in claim 14, French et al. discloses a method for operating a computer failover system, comprising:

executing a client computer program on a client computer, the client computer program communicating with a first file server (Figs. 1-4; column 4 line 58 through column 5 line 6; column 5 line 35-62);

a failover name (Figs. 5 and 6; column 7 lines 37-39, 43-45; column 8 lines 15-26, 32-36; where a secondary name given to a server is used for failover purposes, which is implied to have been previously determined/computed and placed in a configuration file);

detecting an error condition (column 10 lines 4-5 and 62-67, where the error condition induces failover); and

connecting, in response to detecting the error condition, to a failover file server port (Figs. 9A and 9B; column 10 lines 38-60, where the failover server "Customers" inherently contains a port for connection with a client).

However, French et al. fails to specifically disclose computing of a failover name, and resolution of the failover name to a network address. Sundaresan et al. discloses resolving a server name to a network address (paragraph [0036] lines 3-4 where determining connection information for "server" at the second server resolves the "failover name to a network address"; further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15). Gronke discloses computation of a failover name (Fig. 7; paragraph [0045] where "computing a failover name" is interpreted as the identifying of an alternate fabric by a port mapper in the event of a failure and assignment of a virtual port number by the connection management subsystem).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the resolution of a server name to a network address as disclosed by Sundaresan et al. in the invention of French et al. This would have been obvious because the failover system of Sundaresan et al. reduces system resource dedication and downtime while providing transparent operation with respect to the user (paragraph [0043] lines 9-14).

It would have been obvious to a person skilled in the art at the time the invention was made to include the "computing of a failover name" as disclosed by Gronke in the combined filer failover environment of Sundaresan et al. and French et al. This would have been obvious because Gronke discloses determining a failover name (paragraph [0045] lines 13-14), resolving

a failover address (paragraph [0045] lines 14-15), and connect to the new port (paragraph [0045] lines 15-16), which parallels the same process described in Sundaresan et al. (paragraph [0036]) in a similar environment as disclosed by French et al. Gronke also provides a "virtual interface" environment (paragraph [0016] and [0018]) as does Sundaresan et al. in which failover (paragraph [0044] lines 2-8) occurs in a network (paragraph [0026] lines 10-11) consisting of "clients" and "servers" (paragraph [0028] lines 4-5), which a person skilled in the art would recognize as allowing for faster and simpler failover.

As in claim 15, French et al. discloses using a file server name for communicating with the first file server (column 9 lines 3-19 and column 10 lines 57-60, where the first file server name is "Customers"); and

computing the failover name by modifying the file server name by an alphanumeric text (Figs. 7 and 9A-D; column 9 lines 3-19; column 9 line 63 through column 10 line 10; column 10 lines 38-60; column 11 lines 1-27; where the file server name is designated by the modifiable configuration parameter 509 "othsrvnames" and the failover name is modified from a null string to reflect primary server name "Inventory" during failover).

As in claim 17, Sundaresan et al. discloses transmitting the failover name to a distributed naming service to perform the step of resolving the failover name to a network address (paragraph [0036] where the distributed naming service is interpreted as NAM 20).

As in claim 18, Sundaresan et al. discloses using a database program as the client computer program (paragraph [0003] lines 1-8).

As in claim 19, Sundaresan et al. discloses detecting a lack of a heartbeat signal from a failed file server (paragraph [0040] lines 4-7).

As in claim 20, Sundaresan et al. discloses transmitting by a failing file server an "I am failing" message (paragraph [0039] where the SRP Activate message is implied as an "I am failing" message because the SRP Activate message is complementary to the failing of the server).

As in claim 21, Sundaresan et al. discloses using a database computer program as the client computer program (paragraph [0003] lines 1-8).

* * *

As in claim 22, French et al. discloses a computer failover system, comprising:

means for executing a client computer program on a client computer, the client computer program communicating with a first file server (Figs. 1-4; column 4 line 58 through column 5 line 6; column 5 line 35-62);

a failover name (Figs. 5 and 6; column 7 lines 37-39, 43-45; column 8 lines 15-26, 32-36; where a secondary name given to a server is used for failover purposes, which is implied to have been previously determined/computed and placed in a configuration file);

means for detecting an error condition (column 10 lines 4-5 and 62-67, where the error condition induces failover); and

means for connecting, in response to detecting the error condition, to a failover file server port (Figs. 9A and 9B; column 10 lines 38-60, where the failover server "Customers" inherently contains a port for connection with a client).

However, French et al. fails to specifically disclose means for computing a failover name, and means for resolution of the failover name to a network address. Sundaresan et al. discloses resolving a server name to a network address (paragraph [0036] lines 3-4 where determining connection information for "server" at the second server resolves the "failover name to a network address"; further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15). Gronke discloses computation of a failover name (Fig. 7; paragraph [0045] where "computing a failover name" is interpreted as the identifying of an alternate fabric by a port mapper in the event of a failure and assignment of a virtual port number by the connection management subsystem).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the resolution of a server name to a network address as disclosed by Sundaresan et al. in the invention of French et al. This would have been obvious because the failover system of Sundaresan et al. reduces system resource dedication and downtime while providing transparent operation with respect to the user (paragraph [0043] lines 9-14).

It would have been obvious to a person skilled in the art at the time the invention was made to include the "computing of a failover name" as disclosed by Gronke in the combined filer failover environment of Sundaresan et al. and French et al. This would have been obvious because Gronke discloses determining a failover name (paragraph [0045] lines 13-14), resolving a failover address (paragraph [0045] lines 14-15), and connect to the new port (paragraph [0045] lines 15-16), which parallels the same process described in Sundaresan et al. (paragraph [0036]) in a similar environment as disclosed by French et al. Gronke also provides a "virtual interface" environment (paragraph [0016] and [0018]) as does Sundaresan et al. in which failover (paragraph [0044] lines 2-8) occurs in a network (paragraph [0026] lines 10-11) consisting of "clients" and "servers" (paragraph [0028] lines 4-5), which a person skilled in the art would recognize as allowing for faster and simpler failover.

As in claim 23, French et al. discloses means for using a file server name for communicating with the first file server (column 9 lines 3-19 and column 10 lines 57-60, where the first file server name is "Customers"); and

means for computing the failover name by modifying the file server name by an alphanumeric text (Figs. 7 and 9A-D; column 9 lines 3-19; column 9 line 63 through column 10 line 10; column 10 lines 38-60; column 11 lines 1-27; where the file server name is designated by the modifiable configuration parameter 509 "othsrvnames" and the failover name is modified from a null string to reflect primary server name "Inventory" during failover).

As in claim 25, Sundaresan et al. discloses means for transmitting the failover name to a distributed naming service to perform the step of resolving the failover name to a network address (paragraph [0036] where the distributed naming service is interpreted as NAM 20).

As in claim 26, Sundaresan et al. discloses means for using a database program as the client computer program (paragraph [0003] lines 1-8).

As in claim 27, Sundaresan et al. discloses means for detecting a lack of a heartbeat signal from a failed file server (paragraph [0040] lines 4-7).

As in claim 28, Sundaresan et al. discloses means for sending, by a failing file server, an error message to the first file server (paragraph [0039] where the SRP Activate message is implied as an error message because the SRP Activate message is complementary to the failing of the server which has encountered an error).

As in claim 29, Sundaresan et al. discloses means for transmitting by a failing file server an "I am failing" message (paragraph [0039] where the SRP Activate message is implied as an "I am failing" message because the SRP Activate message is complementary to the failing of the server).

* * *

As in claim 30, French et al. discloses a computer failover system, comprising:

a client computer having a client computer program executing thereon, the client computer program communicating with a first file server (Figs. 1-4; column 4 line 58 through column 5 line 6; column 5 line 35-62);

a failover name (Figs. 5 and 6; column 7 lines 37-39, 43-45; column 8 lines 15-26, 32-36; where a secondary name given to a server is used for failover purposes, which is implied to have been previously determined/computed and placed in a configuration file);

a port to receive a message reporting an error condition in the first file server (column 10 lines 4-5 and 62-67, where the error condition induces failover, and a port is inherent for connection between the file server and the rest of the system); and

a file system process to use the failover name and network address to connect, in response to the error condition, to a failover file server port having the network address (Figs. 9A and 9B; column 10 lines 38-60, where the failover server "Customers" inherently contains a port for connection with a client and an implied associated network address).

However, French et al. fails to specifically disclose a file system process for computing a failover name, and port for the resolution of the failover name to a network address. Sundaresan et al. discloses resolving a server name to a network address (paragraph [0036] lines 3-4 where determining connection information for "server" at the second server resolves the "failover name to a network address"; further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15; port is ihnerent for connection and transmission within system). Gronke discloses a file system process computation of a failover name (Fig. 7; paragraph [0045] where "computing a failover name" is interpreted as the identifying of an alternate fabric by a port mapper in the event of a

failure and assignment of a virtual port number by the connection management subsystem [file system process]).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the resolution of a server name to a network address as disclosed by Sundaresan et al. in the invention of French et al. This would have been obvious because the failover system of Sundaresan et al. reduces system resource dedication and downtime while providing transparent operation with respect to the user (paragraph [0043] lines 9-14).

It would have been obvious to a person skilled in the art at the time the invention was made to include the "computing of a failover name" as disclosed by Gronke in the combined filer failover environment of Sundaresan et al. and French et al. This would have been obvious because Gronke discloses determining a failover name (paragraph [0045] lines 13-14), resolving a failover address (paragraph [0045] lines 14-15), and connect to the new port (paragraph [0045] lines 15-16), which parallels the same process described in Sundaresan et al. (paragraph [0036]) in a similar environment as disclosed by French et al. Gronke also provides a "virtual interface" environment (paragraph [0016] and [0018]) as does Sundaresan et al. in which failover (paragraph [0044] lines 2-8) occurs in a network (paragraph [0026] lines 10-11) consisting of "clients" and "servers" (paragraph [0028] lines 4-5), which a person skilled in the art would recognize as allowing for faster and simpler failover.

As in claim 31, French et al. discloses a file system process to use a file server name to communicate with the first file server (column 9 lines 3-19 and column 10 lines 57-60, where the first file server name is "Customers"), and to compute the failover name by modifying the file

server name by an alphanumeric text (Figs. 7 and 9A-D; column 9 lines 3-19; column 9 line 63 through column 10 line 10; column 10 lines 38-60; column 11 lines 1-27; where the file server name is designated by the modifiable configuration parameter 509 "othsrvnames" and the failover name is modified from a null string to reflect primary server name "Inventory" during failover).

As in claim 33, Sundaresan et al. discloses a file system process to transmit the failover name to a distributed naming service to perform the step of resolving the failover name to a network address (paragraph [0036] where the distributed naming service is interpreted as NAM 20).

As in claim 34, Sundaresan et al. discloses the client computer program is a database program (paragraph [0003] lines 1-8).

As in claim 35, Sundaresan et al. discloses means for detecting a lack of a heartbeat signal from a failed file server (paragraph [0040] lines 4-7).

As in claim 36, Sundaresan et al. discloses means for sending, by a failing file server, an error message to the first file server (paragraph [0039] where the SRP Activate message is implied as an error message because the SRP Activate message is complementary to the failing of the server which has encountered an error).

As in claim 37, Sundaresan et al. discloses means for transmitting by a failing file server an "I am failing" message (paragraph [0039] where the SRP Activate message is implied as an "I am failing" message because the SRP Activate message is complementary to the failing of the server).

* * *

As in claim 38, French et al. discloses a computer readable media, comprising:

said computer readable media containing instructions for execution on a processor for the practice of a method for operating a computer failover system, the method having the steps of,

executing a client computer program on a client computer, the client computer program communicating with a first file server (Figs. 1-4; column 4 line 58 through column 5 line 6; column 5 line 35-62);

a failover name (Figs. 5 and 6; column 7 lines 37-39, 43-45; column 8 lines 15-26, 32-36; where a secondary name given to a server is used for failover purposes, which is implied to have been previously determined/computed and placed in a configuration file);

detecting an error condition (column 10 lines 4-5 and 62-67, where the error condition induces failover, and a port is inherent for connection between the file server and the rest of the system); and

connecting, in response to the error condition, to a failover file server port having the network address (Figs. 9A and 9B; column 10 lines 38-60, where the failover server

"Customers" inherently contains a port for connection with a client and an implied associated network address).

However, French et al. fails to specifically disclose a file system process for computing a failover name, and resolution of the failover name to a network address. Sundaresan et al. discloses resolving a server name to a network address (paragraph [0036] lines 3-4 where determining connection information for "server" at the second server resolves the "failover name to a network address"; further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15). Gronke discloses a file system process computation of a failover name (Fig. 7; paragraph [0045] where "computing a failover name" is interpreted as the identifying of an alternate fabric by a port mapper in the event of a failure and assignment of a virtual port number by the connection management subsystem [file system process]).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the resolution of a server name to a network address as disclosed by Sundaresan et al. in the invention of French et al. This would have been obvious because the failover system of Sundaresan et al. reduces system resource dedication and downtime while providing transparent operation with respect to the user (paragraph [0043] lines 9-14).

It would have been obvious to a person skilled in the art at the time the invention was made to include the "computing of a failover name" as disclosed by Gronke in the combined filer failover environment of Sundaresan et al. and French et al. This would have been obvious because Gronke discloses determining a failover name (paragraph [0045] lines 13-14), resolving a failover address (paragraph [0045] lines 14-15), and connect to the new port (paragraph [0045] lines 15-16), which parallels the same process described in Sundaresan et al. (paragraph [0036])

in a similar environment as disclosed by French et al. Gronke also provides a "virtual interface" environment (paragraph [0016] and [0018]) as does Sundaresan et al. in which failover (paragraph [0044] lines 2-8) occurs in a network (paragraph [0026] lines 10-11) consisting of "clients" and "servers" (paragraph [0028] lines 4-5), which a person skilled in the art would recognize as allowing for faster and simpler failover.

* * *

As in claim 39, French et al. discloses electromagnetic signals propagating on a computer network, comprising:

said electromagnetic signals carrying instructions for execution on a processor for the practice of a method for operating a computer failover system, the method having the steps of,

executing a client computer program on a client computer, the client computer program communicating with a first file server (Figs. 1-4; column 4 line 58 through column 5 line 6; column 5 line 35-62);

a failover name (Figs. 5 and 6; column 7 lines 37-39, 43-45; column 8 lines 15-26, 32-36; where a secondary name given to a server is used for failover purposes, which is implied to have been previously determined/computed and placed in a configuration file);

detecting an error condition (column 10 lines 4-5 and 62-67, where the error condition induces failover, and a port is inherent for connection between the file server and the rest of the system); and

connecting, in response to the error condition, to a failover file server port having the network address (Figs. 9A and 9B; column 10 lines 38-60, where the failover server "Customers" inherently contains a port for connection with a client and an implied associated network address).

However, French et al. fails to specifically disclose a file system process for computing a failover name, and resolution of the failover name to a network address. Sundaresan et al. discloses resolving a server name to a network address (paragraph [0036] lines 3-4 where determining connection information for "server" at the second server resolves the "failover name to a network address"; further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15). Gronke discloses a file system process computation of a failover name (Fig. 7; paragraph [0045] where "computing a failover name" is interpreted as the identifying of an alternate fabric by a port mapper in the event of a failure and assignment of a virtual port number by the connection management subsystem [file system process]).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the resolution of a server name to a network address as disclosed by Sundaresan et al. in the invention of French et al. This would have been obvious because the failover system of Sundaresan et al. reduces system resource dedication and downtime while providing transparent operation with respect to the user (paragraph [0043] lines 9-14).

It would have been obvious to a person skilled in the art at the time the invention was made to include the "computing of a failover name" as disclosed by Gronke in the combined filer failover environment of Sundaresan et al. and French et al. This would have been obvious because Gronke discloses determining a failover name (paragraph [0045] lines 13-14), resolving

a failover address (paragraph [0045] lines 14-15), and connect to the new port (paragraph [0045] lines 15-16), which parallels the same process described in Sundaresan et al. (paragraph [0036]) in a similar environment as disclosed by French et al. Gronke also provides a "virtual interface" environment (paragraph [0016] and [0018]) as does Sundaresan et al. in which failover (paragraph [0044] lines 2-8) occurs in a network (paragraph [0026] lines 10-11) consisting of "clients" and "servers" (paragraph [0028] lines 4-5), which a person skilled in the art would recognize as allowing for faster and simpler failover.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 7:30 am - 5:00 pm, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3657.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFC
February 2, 2005

SCOTT BADERMAN
PRIMARY EXAMINER